

COST *and* MANAGEMENT

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COST ACCOUNTANTS & INDUSTRIAL ENGINEERS

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J. N. Allan, R.I.A., Secretary-Manager and Editor

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EDITORIAL

What is This Thing Called "Inflation"?

How many of us really know the causes and effects of inflation? The scientific treatise on this subject by an economist would probably be too technical to be understood by even the average man. Some comments from the point of view of the layman, coupled with some recent statements of business executives, could remind us that "INFLATION" is still possible in Canada. Individual consciousness of this danger expressed in practical support through personal suppression of inflation tendencies will contribute largely toward keeping our financial structure on a reasonable level.

Older persons can well remember the stories of the paper money experience in Europe after the first world war. Even in this present period, the money situation, in Europe and also in Asia, is so impossible as to strangle trade and, at the same time, to make living precarious.

During this past war period we, and especially the young munition workers who entered industry for their first earning period, have lost much of our appreciation and sense of "VALUES". Many people of to-day have never heard the doctrine expounded in the "LAW OF SUPPLY AND DEMAND". For want of that education it again might be necessary to go through a period of "DEFLATION", even to the point of bartering which was used in no small degree during the years after the 1929 depression. Let us hope that we regain some of our judgment of value before the price controls are lifted.

The value sense is very well illustrated in the story of the small town banker that made a loan on good security to a farmer. On paying the loan the farmer offered the banker a barrel of cider. "Will you deliver it to my house?" asked the banker. "Yes," said the farmer. "And what will you give me for the barrel when the cider is all gone?" asked the banker.

While experience is the best and ultimate means of teaching the appreciation of values, there also are synthetic means through card games such as The Money Game by Norman Angell, and the well known game of Monopoly. Any buying crowd in que formation well emphasize the necessity for the teaching of "VALUES".

During the war the values of commodities were controlled and subsidized at prescribed levels. The time has arrived for the lifting of some of those controls and then the prices will eventually return to the competitive level established by the factors of supply and demand.

Without creating a controversial case, one might say that a demand condition exists when there are many buyers with money and nothing to buy. This condition is covered in the reference to the country as a whole when it is said that there is a vast Canadian pent-up purchasing power. Locally the same condition exists when ten people go to a merchant to buy an item of which he has only six. An unsatisfied purchasing power rests with the four unsatisfied customers. This is due to the fact that the price,

NEW MEMBERS

in Canada is fixed. Should the price be free, the merchant might increase the price to the point where only those with sufficient money who would or could buy the item. This increased price which takes away the purchasing power is an inflation factor. Under this type of example the whole ten people are affected as well as the merchant. The merchant can get more money than is reasonable, the six pay more than is necessary or fair and the four are deprived of the item desired. This local example is the case at the starting point only. As the cases increase, the effects multiply and accumulate in snow ball volume till the whole trade and economic structure is out of gear. The results have been definitely stated in references to conditions in those countries where inflation is uncontrolled. At every opportunity avoid and suppress any inflation tendencies.

Now that we are engrossed in the matter of reconversion, we are very apt to forget what happened during the last six years. We are aware that Canada did a good job in the control of inflation. Retrospectively we can take a good deal of satisfaction in the result from our wartime policies and their favourable result upon economic conditions here, in contrast with present conditions in a great many other countries. Those policies included the rigid restriction on the consumption of civilian goods in order to release and transfer the largest possible portion of our energies to war production. Inflation was then controlled through the prices control of the available commodities. This avoided inflation during this period and the savings put into bank deposits or into bonds and certificates are still available in purchasing power. Another factor to support this policy was the keeping down of the interest rates. Inflation would have taken effect even then if the Canadian people had not co-operated so whole heartedly in the control policies. So far, an ideal job has been done. This brings us up to the present time. To avoid a morning after the night before experience toward inflation it will still be necessary that the Dominion maintain tax policies and wage price control policies that will resist any tendencies of an inflationary nature to the point where the commodity supply will in its ability to meet demands, re-establish reasonable value levels.

New Members

Calgary Chapter

- Basil Hills, C.A., 309 8th Avenue West.
- R. P. Pearpoint, Safeways Stores Limited.
- J. J. Flurey, United Grain Growers Limited.
- J. G. Davis, McColl-Frontenac Company Limited.
- J. P. Allan, McColl-Frontenac Oil Company Limited.
- W. J. Mack, Shell Oil Company of Canada Limited.
- H. G. Richardson, C.A., Union Milk Company Limited.
- J. Nairn, Fred Mannix & Company Limited.
- D. E. Tincknell, Burns & Co. Limited.
- T. C. Miller, Maclin Motors Limited.
- R. Berrington, Crown Lumber Co. Limited.
- D. Robertson, Western Canadian Greyhound Lines Limited.
- J. S. Frew, Western Canadian Greyhound Lines Limited.

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R. M. Crockett, Western Canadian Greyhound Lines Limited.
J. S. Peppard, Western Canadian Greyhound Lines Limited.
Eric Williams, All Canada Radio Facilities Limited.
Alf Petersen, Taylor Pearson and Carson Broadcasting Co. Ltd.
Miss O. G. Liliedahl, Government of Alberta.
A. G. Jacka, Canada Malting Co. Limited.
J. H. Young, Commercial Tire (Alta.) Ltd.
Norman Hides, General Supplies Limited.

Edmonton Chapter

Clem. L. King, University of Alberta.
John Hunter, Aircraft Repair Limited.
Robert Molloy, Alberta Government Telephones.
Francis Neal, Weber Bros. Agencies Limited.
G. W. Northheld, Inspector of Income Tax, Dominion Government.
F. J. Mitchell, 912 McLeod Building.
J. N. Shortliffe, MacCosham Storage & Distributing Co.
J. Cowley, Swift Canadian Co. Limited.
D. A. Florence, Western Transfer & Storage Co.
Donald R. Hendra, Commerce Drug Co. Ltd.
V. T. Fowler, Marshall-Wells Alberta Co. Ltd.

Hamilton Chapter

Glenn B. Rand, Keeprite Refrigeration Ltd., Brantford.
Clive F. Taylor, International Harvester Co.
George L. Martin, Procter Gamble Co. of Canada Ltd.
Norman E. Whinton, Canadian Society of Cost Accountants and Industrial Engineers.

Lethbridge Chapter

D. C. Robison, McKenzie Electric Ltd.
M. A. Parkyn, 312 4th South Street.
Jack Craine, Marquis Hotel.
D. J. Brownrigg, Federal Mine.
Eric Cranstoun, Public Accountant.
H. S. Greenway, Canadian Western Natural Gas, Light, Heat & Power Co.
W. T. Hurst, Lethbridge Collieries Ltd.
I. J. Kain, Public Accountant.
R. H. Jeacock, Marquis Hotel.
R. C. Jones, Broder Canning Co.
Jack Lakie, Sicks' Lethbridge Brewing Ltd.
S. B. Nordquist, H. R. Carson Ltd.
G. W. Purves-Smith, Public Accountant.

London Chapter

Miss Edna B. Smith, The Huron & Erie Mortgage Corporation.
James H. Edwards, C.P.A., Pearson, Edwards & Co.

Montreal Chapter

John F. Hudson, 434 St. Helen's St.
G. G. Huberdeau, 8455-A Foucher St.
W. P. Carr, National Breweries Ltd.
W. J. McDonald, Canadian Linseed Oil Mills Ltd.

CHAPTER NOTES

R. Roy, Banque Canadienne Nationale.

W. E. Johnson, R. A. Rankin & Co.

Niagara Chapter

Jack E. Legge, Thompson Products Ltd., St. Catharines.

Ottawa Chapter

George Green, The E. B. Eddy Co. Ltd.

R. L. McMillan, The Pritchard Andrews Co. of Ottawa Ltd.

Toronto Chapter

L. F. Wickett, International Business Machines Co. Ltd.

Roy Curtis, The Lowe Bros. Co. Ltd.

H. N. Colthurst, A.C.A., Wartime Prices and Trade Board.

Windsor Chapter

P. R. Pearson, C.P.A., Pearson, Edwards & Co., Chatham.

Non-resident

David Korn, Smith, Schacter & Gilman, C.A., Winnipeg.

Ldg. Wtr. L. A. Mills, On Active Service, R.C.N.V.R.

Alexander McCullough, Newforge Ltd., Belfast, Ireland.

Vancouver Chapter

C. William Van Houten, Cost Inspection and Audit Division, Department of Finance.

Chapter Notes

BAY OF QUINTE CHAPTER

The Chapter had an unusually interesting meeting on February 26th when Dr. H. Moore gave an inspiring address of his chosen subject, "Supervisory and Administrative Personnel—Their Selection and Development".

The meeting was successful both from the standpoint of the address presented and the attendance.

Everyone present was very much impressed with the thoughts expressed by the speaker and his remarks will long remain in the memories of his listeners.

CALGARY CHAPTER

A regular semi-monthly meeting of the Chapter was held in the Avenue Grill on Wednesday, February 13, at 6.00 p.m., with 40 members and visitors present.

Mr. Ross Humphries, R.I.A., Vice-Chairman of the Calgary Chapter, presided as our worthy Chairman; A. P. Bowsher, R.I.A., was the speaker of the evening.

The subject chosen by Mr. Bowsher was "Accounts of a Drilling Contractor", which proved very instructive and interesting in view of the speaker's thorough knowledge of the subject.

We are sorry to report that Herb. Hutton, R.I.A., Chairman of our Students' Educational Committee, has found it necessary to relinquish his position on the Council of the Calgary Chapter owing to the fact that his "remunerative" occupation takes him out of town a great deal of the time. "Bob" Gibb, R.I.A., has taken Herb's position on the Council and J. H. Cooper, R.I.A., has taken over the Chairmanship of the Educational Com-

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mittee. Herb. has done an excellent job in preparing the students of the Calgary Chapter for their exams., and we wish the parties assuming his duties every success.

We wish also to take this opportunity of welcoming J. Harry Young, of the Commercial Tire (Alberta) Ltd., as one of our student members.

HAMILTON CHAPTER

A well attended meeting of the Hamilton Chapter, on February 21st, greeted the President of the Canadian Society, Walter Furneaux, R.I.A., general manager of the Canadian Aerovox Co.

Diplomas for the R.I.A. Degree were presented to John Bracewell and F. A. Lee, two local members who had successfully passed their examinations in Cost Accounting.

The speaker and guest of honour spoke on Stabilization of Wages. He traced, briefly, the history of employment from the days when an employee was regarded as merely an hourly rate. This, with a few exceptions, was the basic reason for the gulf between capital and labour. It was regrettable, the speaker continued, that in the past it seemed to require great social upheavals to bring people in all walks of life, to a realization of human values. In the process the innocent suffered with the guilty.

Time, the speaker contended, was the great yardstick to measure progress. The conference table is the accepted medium of to-day, of revealing the fact that both sides have problems. Wide awake employers have learned much from labour troubles. Despite the strikes that do occur there are many successful plans in operation in plants on this Continent resulting in harmonious relations between employers and employees. These prove that it can be done and furthermore, cannot be continually ignored. Mr. Furneaux took time to outline a plan that is successfully operating in a certain manufacturing plant in Canada. At the same time, however, he warned his audience that there is no master plan for all types of industry. Each type of industry must work out its own salvation. The prelude to that happy condition is the willingness to co-operate.

KITCHENER CHAPTER

"The Balance Sheet" provided the subject of a discussion lead by J. G. Brown, C.A., of Kitchener, resident manager, Thorne, Mulholland, Howson & McPherson, chartered accountants, at a meeting of Kitchener Chapter, held at the Granite Club in that city, Wednesday, February 20. Mel. Walker, Vice-Chairman, presided in the absence of Chairman E. C. Codling, of Fergus.

A varied discussion took place on items such as assets, liabilities, expenses, excess profits, decontrol, reconversions, subsidies and costing. Mr. Brown answered numerous questions during which time he said the Ives Commission report is being awaited with a great deal of interest in financial, banking and industrial circles.

The meeting was featured by the attendance of a large number of members of the Kitchener-Waterloo banking fraternity. Mr. Brown was introduced by Earl Gillespie, of Waterloo, and the appreciation of the Chapter was expressed by Dan Seebach, of Kitchener. Carl Dorschell, of Galt, and J. G. O'Neill, of Kitchener, were introduced as new members.

CHAPTER NOTES

It was announced that Chairman E. C. Codling is still on the sick list and in his place Walter Jardine, of Preston, was appointed chairman of the Nominating Committee. Other members of the committee, charged with bringing in a slate of 1946-47 officers, are: Reginald Kidner, Preston; D. Seebach, Kitchener; Joseph Bowman and James Babcock, of Galt.

LONDON CHAPTER

Mr. R. G. Peat, O.B.E., of Hamilton, was the guest speaker at the January meeting of the Chapter which proved to be one of the most interesting of the season. Mr. Peat was recently retired from the Canadian Army with the rank of Lieutenant-Colonel after commanding the Barriefield Army Training Field.

His subject was "The Method of Supervisory Training in Modern Industry" and outlined the accomplishments which had been made during the war years in supervisory training. Supervisory training was accelerated during the war years as a result of bottlenecks in industry owing to lack of preparedness on the part of supervisors.

The talk was most practical and extremely interesting which was evidenced by the lively discussion following the address.

MONTREAL CHAPTER

The Chapter meeting of February 8th was a most interesting meeting from the standpoint of the paper presented by the speaker and the fact that there were a number of out of town guests.

The Chapter was honoured by the attendance of the Dominion President, Walter H. Furneaux, R.I.A., President of the Society of Industrial and Cost Accountants of Ontario; Mr. A. G. Howey, R.I.A.; Mr. Paul Duchaine, L.C.M.I., from Quebec Chapter, and Mr. A. B. Jones, from Drummondville. The Dominion President, Mr. Furneaux, gave a most interesting account of his visit to the Western Chapters, and also gave a summary of the activities of the Society during the past year. He congratulated the Cost and Management Institute on the remarkable progress they have made during the past year and complimented Mr. P. W. Wright on the success of his efforts as President of the Institute.

The speaker of the evening was Mr. R. G. Flood, Supervisor of Employee Relations, Canadian General Electric Co. Mr. Flood gave a most interesting talk on the problem of labour relations and spoke with much feeling of the need for a greater recognition of the inherent rights of each individual for all due consideration as a human being. He pointed out that the economic loss due to current labour disputes was sufficient evidence alone of the lack of close co-operation between management and labour and a recognition of the rights of each. The speaker felt that management through their department heads should develop a more friendly attitude towards the individual employee and the employees on the other hand should give due consideration in its demands to the risks which management must take in the development of his business enterprise in order that the employees themselves may have continued employment. A most interesting discussion followed when many thoughts were expressed to contribute toward the development of better labour relations.

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NIAGARA CHAPTER

The Niagara Chapter had the good fortune at its February meeting of hearing Mr. H. S. Ireland who spoke on "A Daily Profit and Loss Statement". Mr. Ireland who is Vice-President and General Manager of the Canadian General Rubber Co. Ltd., spoke from the experience which he had in instituting the preparation of a daily profit and loss statement in his own plant and he gave freely of this experience indicating that it was not only practical, but added tremendously to an effective daily control of the operations of a business.

Mr. Ireland was able to present this most difficult subject in a most interesting manner and gave the members a great deal to think about.

OTTAWA CHAPTER

Members of the Ottawa Chapter were guests of the E. B. Eddy Co. at the February meeting. After partaking of an excellent dinner in the cafeteria, those present were conducted on a tour through a part of the mill and witnessed with considerable interest the making of various kinds of paper.

The meeting was held in the recreation room and was addressed by the Dominion President, Mr. W. H. Furneaux, R.I.A., who spoke on the subject "A Stabilizing Wage Plan". Mr. Furneaux opened his remarks by giving a resume of his visit to the Western Chapters and also a brief review of the activities of the Society for the current fiscal year. In presenting his subject, the speaker stressed the importance of improved labour and management relationship and pointed out that the underlying complaint as far as labour was concerned was they wanted security given though working conditions and wages were of the best.

He felt that labour disputes could not be entirely overcome until the element of insecurity was removed. He further stated that it was possible for management to introduce a certain amount of security for their employees and by way of illustration he explained in some detail, a system of wage payment which introduced wage incentives and an annual wage plan. The plan outlined created a great deal of discussion and proved most interesting and made the meeting very lively.

In the absence of the Chairman, Ran Hartin, the Vice-Chairman, Art Hyndman, took charge of the meeting.

QUEBEC CITY CHAPTER

The Chapter held its regular monthly meeting on February 12th and the guest speaker was Mr. W. H. Furneaux, R.I.A., President of the Canadian Society of Cost Accountants and Industrial Engineers. Mr. Furneaux spoke on the subject, "A Stabilizing Wage Plan", and was introduced by Mr. A. J. Dolbec. In introducing his talk, Mr. Furneaux explained that labour wanted security more than anything else and that in his opinion high wages could not satisfy their requirements. A form of security could be given employees by the development of an annual wage payment plan and proceeded to explain the plan by which this can be accomplished within limits. This plan combined an element of wage incentives which in effect allowed the premiums to accumulate in a special fund and from which employees could draw as the need arose. The plan also introduced a closer relationship between management and labour in that it was to the interest of the em-

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ployees to see that the plant operated efficiently and that a good quality of product was produced.

Also present at this meeting was Mr. P. W. Wright, President of the Cost and Management Institute. Mr. Wright brought greetings from the Montreal Chapter and reported that a Chapter had just been formed in Shawinigan Falls, making the third Chapter in the Institute. He spoke briefly on the activities of the Institute and gave a brief resume of the progress which it had made during the past year.

TORONTO CHAPTER

Toronto Chapter held a very enthusiastic meeting on the 13th of February at Malloney's Art Gallery. There was a large turn-out and new members were welcomed. Degree certificates were presented to Messrs. L. B. and J. T. Bonham and to Mr. R. McLaughlin.

The Chairman, Mr. J. E. McKee, introduced the speaker, Mr. H. R. Smyth, C.A., Executive Director of De Havilland Aircraft of Canada Limited, who gave a very interesting talk on "Wartime Cost Accounting—What Have We Learned?" Max Coutts thanked the speaker for a very illuminating and informative talk.

The next meeting will be held on March 13th when the speaker will be Professor J. L. McDougall, of Queen's University, on a subject relative to "Wage Trends".

Mr. Sid Duxbury, formerly Vice-Chairman of the Toronto Chapter Student Section, has been appointed Chairman succeeding Mr. Gordon Mason, who has moved from the city.

VANCOUVER CHAPTER

A very interesting dinner meeting of the Vancouver Chapter was held on Thursday, February 14, at the Hotel Georgia. Mr. M. Gilmour, Chairman, presided.

New members were introduced and welcomed to the Society, and visitors also were presented.

Mr. N. Terry, Provincial President, gave a short talk on the value of senior members putting their weight behind the student body and giving them a boost by attending some of their weekly study group meetings. Mr. Terry emphasized the need for fostering the student body as they are the back-bone of the Society.

Mr. N. Abramsen gave an interesting five minute talk on the value of using modern office machinery and equipment for the speeding up of cost figures and data.

Mr. W. M. McKinstry, Regional Superintendent, Pacific Region, Unemployment Insurance Commission, was the guest speaker of the evening. He gave a very interesting resume of the National Selective Service regulations past and present, outlining the advantages accrued by the Act and pointing out how, under present day conditions, it was necessary to keep some of the regulations, one of them being employment registration. This helps the average person looking for work, by eliminating the need for tramping from door to door, as was customary and necessary in the past. Mr. McKinstry also gave out some very interesting facts and figures and stressed the various advantages of the Unemployment Insurance Act.

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The meeting was very well attended—members of the press also being present.

The attendance prize was won by Mr. W. D. Sharpe, of the National Paper Box.

VICTORIA CHAPTER

We held our usual monthly meeting on the 14th instant, and spent a very interesting and profitable evening in an open discussion on "Normal Capacity and Its Uses", which appeared in the December issue of "Cost and Management".

It was decided to change our meeting night to the third Thursday in each month, in order to make possible an interchange of visits between the Vancouver Chapter and ourselves.

We have lost to Vancouver another of our good members, Mr. J. M. Robertson, but in compensation, we had the pleasure on Thursday night of welcoming into our group, Mr. Frampton, of B.C. Packers Limited, who is now located in Victoria.

WINDSOR CHAPTER

The Windsor Chapter was honoured at its February meeting by the presence of the Dominion President, Mr. W. H. Furneaux, R.I.A. Mr. Furneaux gave a report on his visit to other Chapters throughout the Dominion and spoke in high praise of the activities of the Western Chapters.

The subject of his address was "What Management Expects from the Accountant", and pointed out the opportunities which are available to industrial accountants if they can meet the needs of management. He pointed out, however, in order to do this, accountants must be able to present their reports and financial statements in such a way they can understand, they must be able to provide management with the controls which are available through the medium of concise and intelligent reports and they must also educate management in the utilization of the information which is given to him. He pointed out many of the faults that are chargeable to most accountants.

As a result of this talk many of the members were stirred to a fuller appreciation of their job in relation to management.

New Chapters Formed

During the month of February, three new Chapters were formed, one in each of the Provinces of Alberta, Ontario and Quebec. This means that there will, this year, be a new Chapter in each of the Provincial Societies, the Victoria Chapter having been formed by the Society of Industrial Accountants of British Columbia earlier in the year. This has been a notable achievement, and coming as it does in our twenty-fifth year, will contribute greatly to making this an outstanding year in the history of our organization.

These new Chapters mean a great deal to the Society as a whole. In the first place, they widen considerably the sphere of its influence and the scope of its activities. They increase the value of the organization to its individual members by reason of the wider associations and increased potentialities for contributions to the advancement of our profession. Then too, the formation of these new Chapters reveals a progressive spirit that is prevalent in the various Provincial Societies. The executives of each of

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these organizations have been putting forth a tremendous effort to make this an outstanding year and when we consider that the membership of the Canadian Society is now in excess of 1700 members as compared with less than 1300 at the beginning of our fiscal year, it can be seen their efforts have not been without success. They will all have much on which to report at their next Annual Meeting.

LETHBRIDGE CHAPTER

A Chapter of the Society of Industrial Accountants of Alberta was formed in Lethbridge on January 24th when Walter Nobbs, President of the Provincial Society, and a number of Calgary members addressed the accountants and business executives of Lethbridge. Work on the organization of this Chapter had been proceeding for some time and was successfully concluded at this meeting. This makes the third Chapter in the Province of Alberta which represents outstanding progress in the Society since it was incorporated in 1944.

The applicants for membership in this new Chapter elected as their executive the following officers:

Chairman	Mr. H. S. Greenway
Vice-Chairman	Mr. D. J. Brownrigg
Secretary	Mr. D. C. Robison
Treasurer	Mr. I. J. Kain
Director	Mr. J. Lakie

On February 7th, they held their first organized meeting and Mr. T. R. Humphries, R.I.A., Chairman of the Membership Committee in the Calgary Chapter, gave an outline of the history of the Canadian Society of Cost Accountants and Industrial Engineers and the various Provincial Societies affiliated with it. He reviewed the aims and objects of the Society, making particular reference to the efforts of the Society towards improving the standards of industrial accounting and raising the status of industrial accountants.

The Western Chapters have made an enviable reputation for achievement and we feel sure that the Lethbridge Chapter will keep abreast of the activities of their western associates.

ST. MAURICE VALLEY CHAPTER

On February 11th, a meeting of the Industrial and Cost Accountants and business executives in the St. Maurice Valley attended a meeting at the Cascade Inn, Shawinigan Falls, to consider the formation of a Chapter. Eight members from the Montreal Chapter journeyed to Shawinigan Falls for the meeting and 76 invited guests attended the dinner in response to invitations which had been sent out.

Mr. Henry Pike, of Shawinigan Chemicals Ltd., acted as Chairman of the meeting and explained the purpose for which the meeting was being held. He introduced Mr. P. W. Wright, L.C.M.I., President of The Cost and Management Institute of Quebec. Mr. Wright explained the advantages of the organization and the efforts which had been made by The Cost and Management Institute in the Province of Quebec to advance the profession of cost accounting and industrial management by granting degrees to qualified members.

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NEW CHAPTERS

Walter H. Furneaux, R.I.A., President of The Canadian Society of Cost Accountants and Industrial Engineers, gave the history of the organization from its inception and related the progress which had been made both in point of new Chapters and membership increase and development of services to its members. He indicated the present strength of the organization and the potentialities that existed for its further progress. He expressed the hope that the business men in the St. Maurice Valley would take part in the forward steps which were being experienced by the organization as a whole.

Mr. D. R. Patton, C.A., L.C.M.I., Chairman of the Educational Committee, outlined the educational activities of the organization and explained the uniformity which existed between the various Provincial organizations.

Mr. J. N. Allan, R.I.A., Secretary-Manager of the Canadian Society, reviewed briefly the advantages in having membership in the Society and the services which it rendered.

Mr. Charles P. Dumas, L.C.M.I., Secretary of the Cost and Management Institute, paid tribute to the aggressiveness which was evident in the St. Maurice Valley and, speaking in French, invited those present to join the Society for the advancement of their own business and progress in industry generally.

After a period of discussion, the Chairman, Mr. Pike, asked for an expression of opinion from those who would be interested in forming a Chapter in the St. Maurice Valley. Twenty-seven of those present indicated that they would take out membership and form a nucleus for such a Chapter. These 27 applicants then met and elected the following as a provisional committee:

Chairman	Mr. Henry Pike
Secretary	Mr. J. U. Courteau
Director in Charge of Membership for Grand'mere	Mr. A. F. Gurr
Director in Charge of Membership for Shawinigan Falls	Mr. J. Balcer
Directors	Dr. C. N. Crutchfield, Mr. Paul Bellehumeur, Mr. Rene De Cotret

It was decided that a meeting would be held in March to form a permanent Board of Directors and to plan a meeting at Three Rivers for the purpose of interesting members in that city.

KINGSTON CHAPTER

A meeting was held in the Hotel Frontenac, Kingston, on February 15th, with 41 present in response to invitations which were sent out. The meeting was under the Chairmanship of Mr. R. G. Neill, of the Monarch Battery Co., who explained the purpose of the meeting and expressed his own personal appreciation for the interest shown by those present in attending this meeting. The Chairman called upon Professor R. G. H. Smalls, C.A., to say a few words on behalf of the Society with particular reference to its educational aspects. He explained that Professor Smalls was a member of the Society and supervised its courses in general accounting in his capacity of Acting Director of Commerce at Queen's University.

Professor Smalls explained that there had been a definite need for a specialized course of study in industrial and cost accounting in view of the increasing importance of accounting and cost accounting in industry. He explained in his opinion that the Society was providing a course to meet this

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need and further that it had the powers of granting recognition in the form of a degree designation to those who became qualified under its regulated standards. Professor Smalls spoke of the experiences which he had enjoyed in his connection with the educational activities of the Society and he felt that the organization was rendering a service not only to industrial and cost accountants but industrial and commercial businesses as a whole through the various services which it rendered.

J. N. Allan, R.I.A., Secretary-Manager, outlined the history of The Canadian Society of Cost Accountants and Industrial Engineers and its growth to its present position. He also explained the formation of the various Provincial Societies and their affiliation with the Canadian Society and with each other. He reviewed briefly the aims and objects of the association and cited the many benefits which can be derived through membership.

The meeting was thrown open for questions during which time many matters of principle and detail were explained. Before putting the formation of Chapter to a vote, the Chairman explained that there were seven members of the Society in Kingston and that two not present had signified their intention of joining.

Thirty-seven present signified their desire to take out membership in the Society and form a Chapter in the City of Kingston.

The following officers and directors were elected:

Chairman	Mr. R. G. Neill, Monarch Battery Co.
Vice-Chairman	Mr. Fred Dane, Canadian Locomotive Co.
Secretary-Treasurer	Mr. B. W. Matthews, C.A., Geo. A. Touche & Co.
Director in Charge of Program	Mr. G. F. Cassidy, Canadian Industries Ltd.
Director in Charge of Membership....	Mr. McKnight, Canadian Industries Ltd.
Director	Miss Shortt, Aluminum Co. of Canada

It was decided that meeting nights should be held on the third Thursday of each month in the Hotel Frontenac.

The President and Directors of The Canadian Society of Cost Accountants and Industrial Engineers extend a very hearty welcome to the Lethbridge, Kingston and St. Maurice Valley Chapters and wish them much success.

Current Legislation

By ADAM C. ZIMMERMAN, B.A.

Foreign Dealings with goods in Canada is the cause behind the enactment of Order Number 593. There has been an increasing tendency, regarding Canadian goods in short supply, to circumvent the Canadian price ceiling by means of sales, fictitious and otherwise, to buyers in foreign countries and re-sale by such buyers to purchasers in Canada under such circumstances that there is an ostensible export and re-import of the goods so as to be exempt in both cases from the Canadian price ceiling, though

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the goods never leave the Dominion in fact. In order to control this practice and to maintain the Canadian price ceiling, the said regulation provides, *inter alia*, that no person in Canada shall sell or offer to sell any goods situated in Canada to any foreign buyer at a price exceeding the Canadian ceiling price for the goods, unless the goods, under the terms or conditions of the sale, are to be physically exported from Canada by the seller.

Maximum Prices on the sale of certain goods and services have been suspended by Order No. 596, the said Order being effective 1st February, 1946. The goods and services listed in the Schedule attached to this Order are extensive, including in the category of goods aircraft, artificial flowers, artists' pallets, bleaches packaged or bottled for household use, books, cleaning fluids, cosmetics, but not including soaps, shampoos or dentifrices, drugs, certain foods, firearms, games of all kinds, hairdressing accessories, jewellery of any material for the adornment of the person, including diamonds and other precious stones, watches, objects of art, post cards and greeting cards, photographs, pictures and frames, printed music, polishes for metal, silver, brass, glass and window, shaving accessories, smokers' accessories, refined silver, sundry household articles such as hangers, shoe trees, driers, brackets, brooms and so on, tobaccos, cigars and cigarettes, toys, dolls, but not including children's furniture, baby carriages or bicycles, certain used goods, women's millinery, yachts, boats and canoes, and in the category of services including the making of furs, the manufacturing of private formula medicines or toilet goods, publishing, printing, engraving and die making services, the repairing and maintenance of plant machinery and equipment, services performed by optometrists and opticians, the supplying of electricity, gas, steam or water (except a landlord to a tenant), the washing of bottles, barrels, kegs and drums.

Wartime Wages Control has been further amended by Order 348, the essence of which provides for the rectification of wage rates which are low in comparison with the rates generally prevailing for the same occupational classification in the same or comparable localities. This amendment became effective on the 15th February, 1946, and is not intended to depart from the national principle of the maintenance of stability in prices.

Wartime Salaries Control is also amended by Order 349, the essence of which is to authorize an employer to increase the salary paid to a salaried official whose rate of salary is unduly low in relation to a reasonable and proper rate.

The complete amendment, referred to in Orders 348 and 349, should be read in conjunction with the original enactments imposing controls on wages and salaries, for a clear and comprehensive understanding of the same.

Repayment of Subsidies is the subject of an Important Public Notice, effective 1st January, 1946. The Wartime Prices and Trade Board has given notice that the classes of goods described hereafter have been designated as "subsidized goods", respecting the repayment of subsidies and the amounts of subsidy involved in such classes are declared to be the amounts described opposite such classes, as follows:—

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CLASSES AND KINDS OF GOODS	AMOUNT OF SUBSIDY REPAYMENT			
	Per dozen containers			
1. Canned Fruits	16 oz.	20 oz.	28 oz.	105 oz.
(a) Peaches—Fancy, Choice or Standard	41c	48c	66c	\$2.55
(b) Peaches—Pie, Solid Pack				2.20
(c) Bartlett Pears—Fancy, Choice or Standard	45c	55c	75c	2.85
(d) Clapp Favorite and Flemish Pears—Fancy, Choice or Standard	39c	48c	63c	1.95
(e) Kieffer Pears—Fancy, Choice or Standard	33c	40c	53c	1.55
(f) Pears—Pie, Solid Pack				1.70
(g) Plums—Choice or Standard	26c	33c	41c	1.20
(h) Prune Plums—Fancy, Choice or Standard	36c	43c	54c	1.70
(i) Apricots—Fancy, Choice or Standard	42c	48c	66c	2.57
(j) Apricots—Pie, Solid Pack				2.20
(k) Cherries	14c	17c	24c	.92
2. Canned Pork and Beans, Plain or Boiled (Unbaked)	Per dozen cans			
	16 oz.	20 oz.		
		6½c	8c	
	Per dozen containers			
	14 oz.	16 oz.	20 oz.	26 oz.
(a) Tomatoes—Fancy, Choice or Standard				13c
(b) Tomato Juice—Fancy or Choice		3½c	4½c	7c
(c) Peas—All sieves and Un- graded—Fancy, Choice or Standard	5c	5c		17c
(d) Corn — Fancy, Choice or Standard	5c	5c		19c
(e) Corn—Whole Kernel, Vacu- um Packed, Fancy	5c			
(f) Green and Wax Beans— Fancy, Choice or Standard....	15c	15c		65c
4. Cocoa Products				
(a) Cocoa Powder	1 cent per pound			
(b) Chocolate and Chocolate confectionery products	½ cent per pound			
(c) Cocoa Butter	2 cents per pound			
(d) Expeller Cake	½ cent per pound			
5. Coffee	6 cents per pound			
6. Corn Products				
(i) on being exported or on being sold as ships' stores				
(a) Starch	1 cent per pound			
(b) Syrup	⅔ cents per pound			
(ii) on being exported				
Corn Oil	1 cent per pound			
7. Cotton Goods (being goods the chief component of which by weight is cotton) on being sold as ships' stores:—				
(a) by a manufacturer of cotton cloth (primary cotton mill)	31 per cent. of the lawful maxi- mum price at which he may sell such goods for ships' stores, whether or not he sells the same at such price;			
(b) by a manufacturer of cotton goods other than a manufacturer referred to in (a) above, or by a wholesaler	26 per cent. of the lawful maxi- mum price at which he may sell			

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- such goods for ships' stores, whether or not he sells the same at such price;
- (c) by a ships-chandler or retailer 21 per cent. of the lawful maximum price at which he may sell such goods for ships' stores, whether or not he sells the same at such price.
8. Cotton and Cotton Goods (the latter being goods the chief component of which by weight is cotton) but not including:—
- Full Fashioned Hosiery,
 - Cotton Fabrics produced from U.S. grey cloth, which has been imported under special permit for the purpose of being finished in Canada and re-exported,
 - Bags, when used as containers,
 - Used Sugar Bags (which are returned to producing countries for use),
 - New York Garment Models, imported for copy purposes into Canada and re-exported,
 - Dresses exported to the U.S. to be photographed and later returned to Canada,
- on being exported 10 per cent. of invoice value
- Note: Where the Exporter
- (1) purchases the cotton entering into the goods being exported and obtains written assurance that the cotton entering into such goods has not been subsidized, or
 - (2) imports the goods, or the cotton entering into the goods direct and in either case has not received or claimed subsidy, or
 - (3) purchases the goods as manufactured goods and obtains written assurance that the cotton entering into such goods has not been subsidized,
- he may obtain a permit to export such goods without paying the amount required by this notice if the application for such permit is accompanied by a certificate in such form as Commodity Prices Stabilization Corporation Ltd. may approve setting out the circumstances and certifying that the cotton content of such goods has not been subsidized.
- An exporter must retain on file all documents relative to the exemption from "repayment of subsidy" until the corporation's investigators have examined them.
9. Cotton Waste and Rags, new and old, of every description,
on being exported 5 per cent. of invoice value
10. Dried Fruits
- (a) Raisins and Currants 8.5 cents per pound
 - (b) Prunes 9.5 cents per pound
 - (c) Figs 6 cents per pound
11. Elastic Goods
on being exported
- (a) thread 25c per pound
 - (b) webbing 25c per pound
 - (c) narrow fabrics 25c per pound
 - (d) articles of which elastic is the chief component by weight 25c per pound
12. Footwear (except rubber footwear and felt boots)
on being exported 2 per cent. of the price of such footwear as shown on the invoice.
13. Frozen Fruits—Cherries—Sour Pitted 1½ cents per pound (12 fluid oz.)
14. Jams and Jellies—All types 2 cents per pound (12 fluid oz.)
15. Maple Products
- (a) Maple Syrup

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	(i) Bulk or in tin	1 cent per pound
	(ii) Bottled	4 cents per pound
	(b) Maple Sugar	1 $\frac{1}{10}$ cents per pound
16.	Molasses	
	(a) Barbadoes	13 cents per gallon (Imperial)
	(b) All other classes	2 $\frac{1}{2}$ cents per gallon (Imperial)
17.	Potatoes (Table stock)	40c per 100 lbs.
18.	Protein Feeds	22 $\frac{1}{2}$ cents per 1 per cent. of protein content per ton (2,000 lbs.)
19.	Rice	1 $\frac{1}{2}$ cents per pound
20.	Rubber Goods	2.9 cents per lb. of rubber content
21.	Soap and Shortening	10 per cent of invoice value
22.	Spices	
	(a) Cinnamon	15 per cent. of invoice value
	(b) Allspice (pimento)	15 per cent. of invoice value
	(c) Ginger	15 per cent. of invoice value
	(d) Nutmegs	15 per cent. of invoice value
	(e) Mace	15 per cent. of invoice value
	(f) Black Pepper	15 per cent. of invoice value
23.	Synthetic Fibres and Synthetic Fibre Products (the latter being goods the chief component of which by weight is synthetic fibres) but not including:	
	Full Fashioned Hosiery,	
	New York Garment Models, imported for copy purposes into Canada and re-exported,	
	Dresses exported to the U.S. to be photographed and later returned to Canada,	
	on being exported	5 per cent. of invoice value
24.	Tea	1 cent per pound
25.	Tin or Tin Products,	
	on being exported	8 $\frac{1}{2}$ cents per lb. of tin content
26.	Wool and Woollen Goods (the latter being goods the chief component of which by weight is wool) but not including:—	
	Full Fashioned Hosiery,	
	Raw Wool exported to the U.S. for processing, to be returned to Canada,	
	Raw Wool domestically grown,	
	New York Garment Models, imported for copy purposes into Canada and re-exported,	
	Dresses exported to the U.S. to be photographed and later returned to Canada,	
	on being exported	5 per cent. of invoice value
27.	Wool Nails, wool and worsted waste and rags, new and old of every description,	
	on being exported	2 per cent. of invoice value

Current Literature Digest

By HAROLD BRICKER, C.G.A., R.I.A.

THE ACCOUNTANTS' MANNING POOL

As a result of the demobilization of the armed forces and due to the conversion of munition plants to civilian production, there has been a lag during which there has been a transfer of accounting personnel. For many who had ready contacts the disengaging-to-engaging period was not too long. In other cases this period is going to be longer. The shortening of the unattached period rests more on the person him or herself than on anyone else. Initiative is required to establish contacts and obtain interviews leading to assignments. Salesmanship and psychology are rampant in such contacts and the employer and employee each have their points of view and rights.

Let us consider the case of the employer. He decides that he requires an accountant. Unfortunately, there is too much of the overappraisal on the part of the employer as well as the employee. It's a gamble for both. The employer, especially when advertising for help, will ask for an accountant with the hope that he will obtain a good bookkeeper. The bookkeeper is not without ambition as well with the result that the bookkeeper is looking for an accounting position hoping that he will improve his lot and this is not at all unreasonable. This is where the gamble appears. There must be some tolerance on the part of both and only with the combination of tolerance and ambition will the engagement be successful.

Many employers are not beyond criticism. While they are generally fully engaged in their own responsibilities, they often do not give the engaging of an accountant the consideration that such an appointment deserves. There may be some one now filling the responsibility and the employer in looking at an applicant has to decide, from the information received in his application and his or her appearance, that he is getting a better employee who will give the firm better service in the accounting department. However, he may also think that the present persons are weak but trying to get someone better is not worth the gamble. So, the employer sits tight. It is then up to the applicant to solve the situation.

Every applicant must be a salesman of himself. His results will be directly in proportion to his presentation of himself. Care should be taken in regard to the overestimating of his or her capacity and ability. The greater the exaggeration the greater the gamble.

Employers are not generally stony-hearted individuals, difficult to approach. However, some have been so often disappointed that they at times fail to recognize golden ability without timely salesmanship on the part of the applicant. Considerations for overseas service are becoming more evident. If there is the odd employer who disregards that factor, don't generalize that for there are many more who do give overseas service due consideration and nine times out of ten there was no opportunity there in any case.

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For the applicants it might be pointed out that common considerations and possible requirements in him or her will include some of the following qualifications: Appearance and personality; judgment and common sense; loyalty; reliability; tact and diplomacy; concentration and industry; technical training and analytical ability; ambition and studiousness; general education; discretion; neatness of work; aptitude; willingness; confidence; initiative; punctuality; writing and speaking effectively; experience; systematic disposition; alertness; memory; originality; team work; with emphasis varying according to the responsibility. Some of the fundamental qualifications in appointments requiring dealing with the public might be: Integrity; accuracy; good health; and willingness to travel.

In answering an advertisement one is at a great disadvantage because a written reply must be forceful enough to arouse interest in the advertiser. The applicant has a much better chance in the case of a direct approach where he has some idea of the type of business and can present his capabilities in the light of that knowledge.

To those who might be said to be in the accountants manning pool, let us say, give your application your best interpretation of your capacity and supporting education, after you have thoroughly appraised the position for which you are applying. GOOD LUCK, to returned accountants.

CASE STUDY OF A PAYROLL SYSTEM

Reconversion is well on the way. Evidence of operation is already appearing on the markets. Only now, however, is the evidence of the growth of new industries becoming apparent. With the men being released from the armed forces, a definite evidence of their commencing business is daily coming to light in the new firm names appearing in the newspapers and in trade publications. Good luck to our new enterprises!

In new organizations there is always the accounting procedure setup to be installed as the operation takes form and becomes an operating unit. Older firms are also reviewing their accounting services with the aim of obtaining that service more speedily, with less cost and effort. When this is done on a scientific basis, the resulting routine requires new forms and procedures. In the larger organizations, revised manuals of procedure are being written up so that the staff retraining will be expedited and then kept in operation on the new basis by the new manual authority of procedure.

While the installation of a new method is essentially an engineering job, many accountants are setting up their own organizations. Although each case may be a problem of its own, the time and motion study approach will help to confirm the efficiency of the new basis and also minimize the necessity for early re-organization with the view of picking up or discarding any loose ends, so to speak. This preview involves an examination of the whole problem from a job analysis approach. A review of the forms and the records can be made in summary form so that the number of times the information is written may be tabulated and totalled at each location. From this summary it might be determined that the information required can be recorded with less operations and less forms. The minimum recording on the minimum of forms should form the basis of the new procedure.

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There are some interesting points in a recent article in N.A.C.A. under the heading of "Case Study of a Payroll System". Incidentally, there is also a quotation, "If you copy the work of one man it is plagiarism, but if you copy the work of many it is research." There is probably no system that can be universally applied in itself. However, the basic principles can efficiently be used to advantage in the way applicable to the particular case.

The payroll dollars and labour distribution system was installed in the class of plant of about two thousand employees and less. The essential forms included a labour job ticket; departmental labour distribution sheet (peg board or ring ledger type); Summary; Payroll ledger sheet and individual earnings record. This combination collection of payroll and cost distribution information, compared with many systems, is very simple. There is however the detail of payroll distribution which is done on the peg board for cost assembling and distribution and recording.

Some of the points of saving in this system consist of the fact that the time ticket is, in the production departments, used as a clock card so that the central time clock punching is eliminated by having the cards outside the office of the department timekeeper and the employee on coming into the plant goes directly to his department and hands the card in his rack to the timekeeper who records him in so that he is in his place of work at the starting time. In this production section there is eliminated the tedious procedure of reconciling the time clock card with the time ticket. The clock card is still used in recording the service personnel.

When the day's labour tickets arrive in the cost department, they are first placed in numerical order and then rated and extended. There is room on the ticket for a number of jobs and a space at the bottom of the ticket where the summary by departments can be made. Each day's totals are checked with the payroll department who have made their computations on the duplicate copy of the ticket. The duplication of computation in different departments serves as an internal audit control. It also minimizes payroll errors.

The department tickets are summarized on the department summary sheets which also provide for distribution classification. This is done by the calculating machine operators. Provision is also made for accumulating the totals weekly and for the monthly periods. This information is used in the monthly payroll distribution entries.

As it is mentioned above a standard payroll cannot be made so as to be workable in all cases. In mentioning the highlights of the system it is hoped that some time saving accounting methods have been suggested.

To further consolidate the points given above a review of the mechanics of operation would probably be as follows: The starting point is the job time ticket issued in duplicate. The original goes to the cost department, the duplicate to the payroll department. The latter rates and extends the ticket and posts the gross earnings to an individual earnings record containing columns for daily earnings. At the end of the payroll week, hours and amount are totalled on each sheet; deductions and net pay are also computed and entered. The weekly total of the sheets is taken and entered on a summary sheet at the back of each payroll book. This summary sheet is the payroll register.

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The cost department also computes total hours and wages on the original time tickets. These are summarized and posted each day to the upper half of the departmental peg board sheet, whose daily totals thus must agree with the daily earnings computed by the payroll department. Labour distributions are also obtained from the job time tickets. The hours are multiplied by composite labor and burden rate and the total posted to the appropriate cost sheets through a posting machine. This automatically produces a proof sheet whose totals are posted to the lower half of the departmental peg board, representing the labor distribution by departments. At the end of the week these sheets are overlapped on the peg board and photostated. The photostatic summary provides the basis for the necessary payroll and distribution vouchers. It might be noted that the forms used are especially designed for the particular type of industry.

ORIGINAL FILMS OF FRANK B. GILBRETH NOW AVAILABLE

The Chicago Chapter of the Society for the Advancement of Management announces that copies of "The Original Films of Frank B. Gilbreth" are now available for your film library.

Motion pictures showing applications of the principles of motion study are common but the films from which these principles were developed had until recently been seen by only a few of Frank Gilbreth's friends and clients. The Chicago Chapter felt that a summary of the 250,000 feet of 35mm pictures which Mr. Gilbreth filmed between 1905 and 1924 should be available to universities, and also to business and industrial organizations because of its unique value in presenting the historic background of motion study and the outstanding contribution of the father of motion study, Frank B. Gilbreth. In 1940 the Chicago Chapter therefore promoted a review of Gilbreth's own films from which a digest was prepared in collaboration with Dr. Ralph M. Barnes, Professor of Industrial Engineering and Director of Personnel, State University of Iowa, Iowa City, Iowa; Dr. Lillian M. Gilbreth, Management Consultant, Montclair, New Jersey, and James S. Perkins, Chief of Personnel Developments Section, Hawthorne Works, Western Electric Company, Chicago, Illinois.

Some of the more significant studies—recognized as classics in this field—which this film includes are:

The Brick Laying Project Which Led to Motion Study.

Factory Operations Which Led to the Development of Motion Study Principles.

The First Methods Studies of Surgical Operations.

Frederick Taylor's Pig Iron Carrying Experiment.

A Study of Skill by the Cyclegraph Technique.

This film is now made available after 5 years of intensive preparation. It is being offered by the Society, a non-profit organization, as a management service. The Chapter members and collaborators have given much of their time without compensation; however, the Chapter is trying to cover the out-of-pocket expenditures that arose in preparing the film. On this basis a copy of the 1200 foot, 16mm, silent film with reel and metal container is being made available for \$75. (including shipping charges in the United States). Cheques may be made out to the Chicago Chapter of the Society

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for the Advancement of Management (426 S. Maple Ave., Oak Park, Illinois). Since the Chicago Chapter is not staffed to maintain loan service, if you wish to preview the film, you must make arrangements through the Bureau of Visual Instruction, University of Iowa, Iowa City, Iowa, at their University's film library rate of \$4.00.

Standard Cost Accounting for Manufacture and Sale of Paper Boxes and Paper Specialties

By C. L. GUEST, C.G.A., R.I.A., Secretary-Treasurer, Sommerville, Ltd.

There are two radically different methods of computing costs; the first method is to ascertain them AFTER the work is completed; the second method is to ascertain them BEFORE the work is started. The first method is commonly called the "Historical" method while the second is referred to as the "Standard Cost" method.

Historical costs possess very distinct limitation when complete reliance is placed upon them to provide data, which Management needs to plan and control operations. The actual cost of a unit of product conveys, by itself, no information concerning the efficiency with which it is produced. On the other hand, if the actual cost can be set beside a standard cost, which represents a known level of accomplishment, it then is a simple matter to compare the two costs and grasp the significance of the actual cost figure.

A standard cost system accomplishes this result; it is a system wherein predetermined standards are used in computing the standard cost of production, the standard costs being charged to the Work in Process account and compared with the actual costs previously recorded in other cost accounts; this results in variances that are used to measure the efficiency of production.

The predetermined standards embodied in a standard cost system are standards of productive output, as well as for the cost elements—material, labour, and burden. A standard as used in a standard cost system, is a measurement established for what should be achieved under normal conditions. Standards are not mere averages but are established by a process of scientific fact finding, which utilizes both past experience and controlled experiment.

Thus it will be seen that a Standard Cost System provides for Management a measurement of the operating efficiency of the plant, through the accumulation of cost variances. The variances are either favourable or unfavourable; that is, the actual costs are either lower or higher than the Standard Costs. Unfavourable variances are signals indicating inefficiency or trouble in the cost of production; favourable variances indicate operating efficiency. Unfavourable variances appear as debits in the accounts, and favourable variances as credits.

There are many advantages in the "Standard Cost" method over the "Historical" method; these might be summarized as follows:

1. It accelerates the production of Financial Statements. The product unit costs are predetermined before production takes place rather than having to wait until after production is completed to obtain actual costs; this permits the costing of Sales progressively, as shipments are made and avoids the delaying of financial statements until all production on orders producing shipments in this financial period, is completed.

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2. It reduces the volume of clerical work, since a large portion of the details that accompany the operation of the older type of actual cost systems is eliminated.
3. It provides a means of focusing Management's attention on variations from established standards of production cost and factory and administrative expenses.
4. It supplies a method of analysis of variations, by causes, and thus gives Management an invaluable tool by which operating efficiency or inefficiency is disclosed.
5. It sets normal plant capacities.
6. It provides more accurate and stable costs as a basis for establishing selling prices.
7. It provides a basis for the determination of idle equipment, or idle capacity expense, which can be eliminated from current production cost.
8. It provides objectives for all divisions of the business.
9. It promotes co-operation and co-ordination of the efforts in all departments of the business.
10. It automatically creates an internal audit which can never be attained by the "Historical" method: i.e. an allowance or standard is set for each expense item appearing under a cost centre. When a large actual expense appears beside this standard or allowance, causing an unfavourable variance, the cost accountant recognizes this as a danger signal and checks the actual item to either prove or disprove its accuracy. This internal audit automatically eliminates errors in coding or posting far more efficiently than the "Historical" method.

It should always be remembered that the essence of a Standard Cost system is the budget idea of forecasting; this enables one to compute the cost of a product before production is begun and hence any production operations, which are wasteful and unprofitable, can be disclosed progressively as the work is done.

This information is disclosed through variance accounts and at this point we shall consider the ones most frequently used, although other variance accounts can be set up to provide any other desired data.

1. DIRECT MATERIAL VARIANCES

(a) Purchase Price Variance

In which is recorded the amount representing the difference between the standard price of the materials used in production and the purchase or actual cost price of the materials consumed.

(b) Material Usage Variance

In which is recorded the amount representing the difference between the standard quantity of direct materials predetermined for production and the actual quantity requisitioned for use in production.

2. DIRECT LABOUR VARIANCES

(a) Labour Rate Variance

In which is recorded the amount representing the difference between the standard labour rates set for the labour operations and the actual rates paid for the work done.

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(b) Labour Time Variance

In which is recorded the amount representing the difference between the cost of the standard time allowed for the labour operations and the cost of the actual time required.

3. FACTORY BURDEN VARIANCES

(a) Burden Volume (or Activity or Capacity) Variances

In which is recorded the amount representing the difference between the Standard Burden Figure debited to Work in Process and the overhead expense budget figure at the point of actual operating capacity, below or above the standard of 100%.

(b) Burden Controllable Variance

In which is recorded the amount representing the difference between the overhead expense budget figure at the point of actual operating capacity and the actual amount of overhead expenses.

It will readily be seen that when the foregoing data is available, Management is able to judge the degree of efficiency that prevails in all departments of the business and will also know that, if favourable variances prevail, the Budget of Volume, as well as the Budget of Proportionate Expense, is being achieved and therefore that the Profit figure will be as projected or better.

It is also of value to the Management to know the "Break-even" point in Sales Volume. That is, the point in the operation of a business enterprise when the Sales Volume is at a point where the costs and expenses will be absorbed without any net loss being incurred or any net profit being earned. The management officials of every business should know what this point is in their own organization. This information can only be secured if a Budget indicating Variable and Non-variable Costs has been prepared.

When this Budget is completed, it will be quite evident that out of every Sales Dollar a certain portion is the amount by which the variable costs are exceeded. If this amount is divided into the Total Fixed Expenses, one will ascertain the number of Sales Dollars required to just cover the Fixed Expenses—or in other words, the Sales Volume required to break even.

The application of Standard Costs to the manufacture of paper boxes and other paper specialties contains some procedures peculiar to this business, but generally speaking the methods are fairly standard.

Standard cost principles can be incorporated in the cost system of almost any type of business. Despite the number of products manufactured, or the number of jobs worked upon, or the number of labour or machine operations performed, the Standard Cost plan can be made operative. The main prerequisites to its installation are as follows:

1. The existence of a production control and a production planning department.
2. The use of equipment standard rates.
3. Operation and job classifications.
4. Time standards for operation and job classifications, calculated by
 - (a) Time studies.
 - (b) Motion studies.

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5. A wage incentive plan for direct labour.
6. A good layout for production and service departments, enabling a smooth flow of production.
7. An employee training plan.

The foregoing remarks are essential to an understanding of the application of Standard Costs to the Paper Box Industry; we shall now consider the system as it has been installed, step by step, in an actual operation.

The very first task to be undertaken is the division of the factory into departments and each department into cost centres. The number of cost centres established is predicated upon the nature of the operations of the plant. A cost centre may be defined as a section of the plant wherein workmen, with or without machines, are engaged in similar operations or homogeneous activities. The purpose of fixing the cost centre boundary lines is twofold:

1. To set a blanket cost centre burden rate if this is possible.
2. To establish bounds within which the foreman is made responsible for the control of controllable expenses.

Just to the extent that one person alone is responsible for a specific cost, to that extent only does management reap the control rewards that are possible.

The same general plan is followed for Service Departments, as for Productive Departments, and for the reasons just given.

The following is an illustrative division made by department and by cost centre within each department:

#200—SET UP BOX DEPARTMENT

Cost Centres

- #210—Scorers, Rotary Cutter and Creaser.
- #220—Ender.
- #230—K. & D. Auto Stayer.
- #240—Stokes & Smith.

#300—EGG CARTON DEPARTMENT

(One Cost Centre.)

#500—GENERAL PRINTING DEPARTMENT

Cost Centres

- #510—Miehle Printing.
- #520—Multicolour Press.
- #530—Miller Simplex.
- #531—#4 Miehle.
- #540—C. & P. Hand Platens.
- #549—C. & P. Auto Platens.

#600—FOLDING BOX DEPARTMENT

Cost Centres

- #620—Brightwood.
- #650—Paraffine Auto Gluer.
- #665—International Gluer.
- #680—Power Knives.
- #690—Hat Band Machine.

#700—CUT AND CREASE DEPARTMENT

Cost Centres

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- #710—Platen Cut and Crease.
- #720—Miehle Cut and Crease.
- #740—Die Making.
- #760—Stripping.

#800—SPECIALTY DEPARTMENT

Cost Centres

- #810—Liner
- #870—Punch Presses.
- #880—Hydraulic Press.
- #890—Paper Board Slitter.
- #895—Hand Work.

After having arrived at the foregoing division of the plant into Cost Centres, it is then necessary to prepare a Chart of Income and Expense Accounts for the entire plant, indicating a sufficient detail of expenses.

The following is the Chart of Accounts in use:

CHART OF ACCOUNTS

GENERAL LEDGER

INCOME AND EXPENSE ACCOUNTS

- #600—Sales.
- #601—Returns and Allowances.
- #605—Agents and Jobbers Discounts.
- #610—Standard Cost of Sales.
- #611—Variance—Material Purchase Price.
- #612—Variance—Material Usage.
- #615—Variance—Volume of Manufacturing.
- #616—Variance—Controllable—Direct Labour.
- #617—Variance—Controllable—Factory Expense.
- #618—Variance—Rate.
- #619—Extra Budgetary Allowances—Mfg.
- #620—Operating Ledger Control.
- #621—Cost Clearance.
- #630—Standard Material Handling and Shipping.
- #631—Variance—Volume Material Handling and Shipping.
- #632—Variance—Controllable Material Handling and Shipping.
- #640—Royalties Incurred.
- #641—Freight on Sales.
- #660—Standard Administration.
- #662—Variance—Controllable—Administration.
- #670—Standard Selling Expense.
- #672—Variance—Controllable—Selling.
- #699—Provision for Income and Excess Profit Taxes.

ASSET ACCOUNTS

Current

- #701—Petty Cash.
- #710—Bank.
- #720—Accounts Receivable.
- #730—Inventory—Raw Material.
- #740—Inventory—Work in Process.

COST AND MANAGEMENT

750—Inventory—Finished Goods.

760—Investments.

Prepaid

771—Prepaid Insurance.

776—Prepaid Advertising.

780—Prepaid Legal and Professional.

790—Prepaid Unemployment Insurance.

Fixed

800—Land.

810—Buildings.

820—Machinery and Equipment.

830—Cars and Trucks.

LIABILITIES

850—Bank Loan.

860—Accounts Payable.

861—Accrued Wages.

880—Accrued Taxes.

890—Accrued Dominion Taxes.

RESERVES

910—Reserve for Depreciation of Buildings.

920—Reserve for Depreciation of Equipment.

930—Reserve for Depreciation of Cars and Trucks.

CAPITAL STOCK

960

SURPLUS

970

CHART OF ACCOUNTS OPERATING LEDGER

10—BUILDING AND FIXED CHARGES

11—Wages.

13—Rent.

14—Fuel and Steam.

15—Light.

18—Taxes.

20—Insurance.

22—Workmen's Compensation Insurance.

24—Depreciation.

42—Miscellaneous.

44—Telephone.

—etc.

20—ADMINISTRATION

12—Salaries.

33—Group Insurance.

39—Meetings and Dinners.

42—Miscellaneous.

53—Maintenance Material.

56—Credit Reports and Service.

80—Stationery and Office Supplies.

83—Travelling—Offices.

STANDARD COST ACCOUNTING

- #84—Telephone Service.
- #87—Postage.
- #88—Bad Debts.
- #89—Interest, Discount and Exchange.
- #90—Discounts Earned.
- #91—Membership Dues.
- #92—Donations.
- #93—Legal and Professional.
- #95—Executive Travelling.
- etc.

The same expense break down applies to each of the following classifications:

- #30—PERSONNEL
- #50—PRODUCTION CONTROL
- #50—PURCHASING
- #51—MATERIAL CONTROL
- #52—QUALITY CONTROL
- #55—PLANNING
- #70—MATERIAL HANDLING AND SHIPPING
- #80—ENGINEERING AND DESIGN
- #90—GENERAL SALES
- #101—FOOD PACKAGING DIVISION SALES
- #102—GENERAL PACKAGING DIVISION SALES
- #103—GAME DIVISION SALES
- #105—CREATIVE ADVERTISING DIVISION SALES
- #106—DISPLAY DIVISION SALES
- #107—PANEL DIVISION SALES
- #130—GENERAL FACTORY
- #200—SET UP BOX DEPARTMENT
- #370—EGG CARTON DEPARTMENT
- #500—GENERAL PRINTING DEPARTMENT
- #600—FOLDING BOX DEPARTMENT
- #700—CUT AND CREASE DEPARTMENT
- #800—SPECIALTY DEPARTMENT

The third step is the setting of standards throughout the entire business operations; that is, the various bases to which the various costs or incomes are compared. It is from this comparison, as will be shown later, that the variances are developed, which indicate efficiency (or the lack of it), in the various departments.

This setting of standards is the most important feature of the Standard Cost system. They should be set with the greatest care; the most careful thought and the soundest judgment are essential.

The type of Standard, known as the "Current" or "Measurement" standard, is used in the Budget given herewith. This is distinguished from the "Basic" Standard, which is intended to serve only as a yard stick with which both expected and actual performance may be compared.

The standards used in the system under consideration are:

1. Direct Material Standards.

- (a) Quantity of material per unit of production.

COST AND MANAGEMENT

- (b) Purchase price of materials.
- 2. Cost Centre Operating Cost Standards.
(Detailed by individual Expense Account.)
- 3. Labour Standards.
 - (a) Time required to perform the different labour operations.
 - (b) Rates established as Standard.
- 4. Overhead Expense Standards per Machine Hour of Operation.
- 5. Standards for various Administration and Selling Expenses.

These standards for Income and Expenses are incorporated in a Budget. This Income and Expense Budget, as far as detail goes, parallels the Chart of Income and Expense Accounts. The Budget and Chart of Accounts should both parallel the organization of authorities and responsibilities as presented in a corporate organization chart. This permits an easy comparison of estimated (or budgeted), items with the actual.

In addition to dollar amounts the Budget contains the normal number of machine hours projected for each Cost Centre. It is at this normal operation that the budgeted expense should just be incurred. It is evident that, if the actual operating hours are less than the normal amount, the variable expenses (such as Direct Labour), will drop accordingly, while others, such as salaries for supervision, rent, etc., which are fixed, will remain unchanged. For this reason the Budget is made a Flexible Budget; that is, the variable amount for which the department heads are held responsible is adjusted in proportion to the activity of the department, but the fixed amount remains the same. This adjustment is further explained later under the heading of closing out the Work in Process account.

The Books of Original Entry do not depart from those which might be used in any manufacturing business, except that the Voucher Record has an additional column in which the Purchase Price Variance is recorded. In this column is recorded the difference between the actual cost of the goods, (the amount set up as a liability), and the Standard Cost of the goods, (the amount at which the Inventory is carried).

There are only three sources of Original Entry needed.

- 1. Cash Receipt Record.
- 2. Voucher Record.
(A combination of Cash Disbursement Record and Voucher Record.)
- 3. Journal Vouchers.
Numbered consecutively each month. Postings to Ledgers made direct from Journal Vouchers.

The Payroll Distribution is made by whatever method is in use by the Company and may be entered in one item in the Voucher Record but posted directly from the Payroll Distribution itself to the appropriate expense accounts.

There are three books of Secondary Entry that are essential:

- 1. General Ledger.
- 2. Operation Ledger. (Expenses.)
- 3. Accounts Receivable.

From the standpoint of Standard Costs, we are concerned only with the Operation Ledger and a few accounts in the General Ledger.

The Operations Ledger has a separate account for each expense, in each

STANDARD COST ACCOUNTING

Cost Centre. The sheets are filed first according to Cost Centre number, and second according to Account number; thus when the monthly Trial Balance is drawn off, the accounts appear in the same order as they do on the Cost Statements. This facilitates the preparation of the monthly statements.

Before the General Ledger can be closed for the month, all the Standard Cost calculations must be made. These will be considered step by step.

1. Transfer of Raw Material from Raw Material Inventory to Work in Process Inventory.

The Raw Material Inventory is carried at Standard Cost prices, the difference having been charged or credited to Material Price Variance from the Voucher Record. It follows, therefore, that the requisitions for all Raw Material are priced at Standard Cost Prices. These requisitions are extended, summarized and the total journalized as above.

The above remarks apply equally to repair and service material except that when summarized the total of the requisitions is distributed to the various repair and maintenance costs involved.

2. Transfer of Operating Expenses from Manufacturing Ledger to Work in Process Inventory or Selling or Administration Accounts.

(a) Cost Statements are prepared for each manufacturing or control department, and bear the following columns:

(a) Current allowance for each item of expense.

(b) Actual expense incurred.

(c) The variance.

(d), (e) and (f) Each of the above in cumulative form.

On these statements are listed all the individual expense accounts for each department.

These statements are the medium for accumulating departmental expense.

(b) When each one of the above statements is totalled, a summary of the month's calculations can then be prepared for the entire operations by divisions—

Manufacturing

Factory Burden

Selling

Administration

and any other divisions desired.

It should be noted that all operating cost figures are computed in dollars only—the cents being omitted. There are several advantages to this procedure:—

(a) It makes the statements much easier to read and grasp proportions.

(b) It saves in calculations and typing.

The Summaries would appear as follows:

SUMMARY OF MANUFACTURING EXPENSE CLEARED FOR					19...
Dept.		Volume	Current	Controllable	
No.	Clearance	Variance	Allowance	Variance	Actual
200	3752	39	3713	63	3650
300	1741	41	1700	50	1650

COST AND MANAGEMENT

400 .....	.....	.....	.....	.....
500 .....	.....	.....	.....	.....
.....
Total	27540	650	26890	890 26000

The same type of Summary is also prepared for the other divisions of the business,—administration, selling, etc.

The "Amount Cleared" is the Standard Cost of operating each Department, and is calculated by multiplying the hours of activity in each cost centre by the Standard Cost Centre rate for that cost centre. The Costs of Operating all the Cost Centres in each department are then added together to arrive at the Total Standard Cost of operating a Department and is the "Amount Cleared" for that Department.

The "Current Allowance" is the amount that it should cost to operate a department at the activity achieved. That is to say, if the Budget indicates a normal activity of a Cost Centre as being 100 hours per month and the actual operating hours amount to 125, then the activity is 125%, which is the activity achieved.

The actual operating hours of each Cost Centre are really the Machine Hours and are computed as a by-product of the Payroll preparation. Each Cost Centre (or Machine), is controlled directly by an operator and the operator's developed hours constitute the activity of the Cost Centre, since the machine cannot run without an operator.

To arrive at the "Current Allowance", the budgeted amounts, of expenses for individual items in the department, are multiplied by the 125%, the only exception being the items (or portions of items), that are fixed. These, of course, remain the same since they do not fluctuate with an increase or decrease in activity.

It might be thought that the "Amount Cleared" (the cost charged for operating the department), should be the same as the "Current Allowance" (described as what it should cost to run the department). The reason for the difference is twofold:

- (a) The fixed items cause the "Current Allowance" to vary from the achieved activity times the Budget.
- (b) The Cost of the Goods cleared FROM the Work in Process Account to the Inventory of Finished Goods is calculated on fixed or normal Cost Centre rates. Therefore, the amount charged TO Work in Process Account must be at the same rates or the correct cost could not be cleared.

Therefore, since the difference or variance between the "Amount Cleared" and the "Current Allowance" varies in relation to the volume, it is called the "Volume Variance" and is shown on the Summary in the column between the above two items.

The last column is simply the actual expenses incurred; the source of these figures is the Operating Ledger. The difference between the Actual Expense and the Current Allowance is called the "Controllable Variance", since this difference varies in proportion to the Actual Expenses and therefore can be controlled by the individual in charge of the Department.

STANDARD COST ACCOUNTING

From the above Summary a Journal Entry can be prepared, charging Work in Process with the Cost of Operating the Departments, debiting or crediting the Variance Accounts with the total of their respective columns and crediting "Cost Cleared" with the Total Actual Expenses. The "Cost Cleared" account in the General Ledger would always equal the "Operations Ledger" Control account at the end of each month.

When it is desired to accrue a Labour Variance, it is only required to add another column between the "Current Allowance" and the "Actual Expense" called "Labour Variance". The "Controllable Variance" is then broken into two sections, "Labour" and "all other".

To arrive at the "Factory Burden Variances" the same plan is followed as that set out for manufacturing variances above. A separate summary is made for each Factory Burden group of accounts, such as:

- General Manufacturing
- Building and Fixed Charges
- General Burden

3. Transfer of Completed Manufacturing Order from Work in Process Inventory to Inventory of Finished Goods.

As orders are completed the Cost Department is so informed by the Planning Department and such orders are summarized. The following data is accumulated in the Summary:

- (a) Total Standard Cost of number of units finished.
- (b) Total of materials used, on a Standard Basis.
- (c) Total of actual material used.

(To arrive at this, the cost of all material issued to this order is posted from the Stores Requisitions to the Cost Records.)

The Summary would appear as follows:

SUMMARY OF ORDERS COMPLETED FOR				19.....
Order No. and Particulars		Material		Total
		Standard	Actual	Standard Cost
5742	A.M. Co.	3695.00	3640.00	7,450.00
6041	R.H. Co.	5250.00	4750.00	9,325.00
.....
.....
.....
TOTAL		44120.00	43250.00	95,425.00

It will be noticed that the difference between the second and first columns above will give the material usage variance. The journal entry can next be prepared, closing finished orders into Inventory of finished goods and charging or crediting Material Usage Variance with the variance thus calculated.

4. Transfer of the Cost of Goods Sold from Inventory of Finished Goods to Cost of Goods Sold Account.

- (a) As the customers' invoices are prepared progressively throughout the month, an extra copy is supplied to the Cost Department.

COST AND MANAGEMENT

- (b) The Cost Department, from its copy of the manufacturing order, is able to place the Standard Unit Cost on the invoice; this is extended to give the total Standard Cost.
- (c) The Standard Cost on all these invoices is summarized and this figure is the basis for the journal entry making the transfer mentioned above.
5. Charge to Accounts Receivable for the Month's Sales.

The same copies of invoices mentioned in No. 4 above are used to arrive at the charge to Accounts Receivable. They are simply totalled and broken down between Sales, Accrual of Sales Tax Payable, Prepaid Freight, etc. The preparation of the journal entry for these items is then quite clear.

When all these entries have been made and the General Ledger balanced, the Financial Statements may be prepared. The Balance Sheet does not differ from the conventional type.

The Profit and Loss Statement, however, would appear as in Exhibit 1.

It should be noted that the variances appear in the section of the statement to which they apply and are considered, in their entirety, an operating cost in the month incurred.

A. B. COMPANY LIMITED

PROFIT AND LOSS STATEMENT

For the Period Jan. 1, 1945, to Dec. 31, 1945

SALES	\$425,323.79
COST OF GOODS SOLD AT STANDARD COSTS	302,141.51
	<hr/>
	\$123,182.28
Less:	
Variance—Volume	\$ 1,242.22
(Unfavourable)	
Variance—Controllable	741.30
(Unfavourable)	<hr/>
	1,983.52
OPERATING PROFIT	<hr/>
	\$121,198.76
Less:	
Selling Expense	\$ 35,421.40
Administration	23,562.10
	<hr/>
	58,983.50
NET PROFIT BEFORE TAX	<hr/>
	\$ 62,215.26
Less:	
Dominion Income and Excess Profits Tax	24,886.00
	<hr/>
NET PROFIT	\$ 37,329.26

Exhibit No. 1

COST AND MANAGEMENT

« STUDENT SECTION »

GENERAL ACCOUNTING

By H. P. WRIGHT, C.G.A., R.I.A.

ACCOUNTING II

Question 4. (20 Marks)

The following data relate to the operations of Perkins Limited for the quarter year ending March 31, 1945:

Inventories at January 1, 1945—

Finished goods	65,400
Raw materials	96,770
Work in process	23,265
Factory supplies	1,276
Small tools	7,985

Inventories at March 31, 1945—

Finished goods	77,205
Raw materials	81,160
Work in process	25,715
Factory supplies	1,987
Small tools	9,452

Factory payrolls paid during the period—

Direct labour	133,017
Indirect Labour	12,464
Purchases of raw materials	214,485
Purchases of factory supplies	14,290
Freight—inward on raw materials	18,300
Purchases of power	25,700
Royalties paid	14,100
Factory insurance premiums paid	3,600
Purchases of miscellaneous factory services	52,446
Sale of by-products	22,799

Cost of small tools manufactured during the period for own use

8,756

Accrued Liabilities:	Jan. 1, 1945	March 31, 1945
Direct Labour	\$2,164	\$3,197
Salesmen's salaries	1,500	2,100

Prepaid Expenses:

Factory insurance	2,000	2,500
Advertising	1,942	697

The fixed assets of the company (at cost) were as follows:

Land	\$ 9,740
Factory buildings	200,000
General Office buildings	25,000
Plant	400,000

COST AND MANAGEMENT

Office equipment	7,200
Delivery trucks	19,250

These assets depreciated at the following rates per annum: Buildings, 2½%; Plant, 12½%; Office equipment, 20%; Delivery trucks, 15%.

Required: By selection of the relevant items from the above data prepare the manufacturing statement of Perkins Limited for the three months ending March 31, 1945.

SOLUTION

Question 4

Perkins Limited

Manufacturing Statement for the Three Months to March 31, 1945

Inventory of work in process, January 1, 1945	\$ 23,265
Raw Materials:	
Inventory, January 1, 1945	\$ 96,770
Purchases	214,485
Freight inward	18,300
	\$329,555
Inventory, March 31, 1945	81,160
	248,395
Direct labour	134,050
Factory Service:	
Indirect labour	\$ 12,464
Factory supplies	13,579
Power	25,700
Royalties	14,100
Factory insurance	3,100
Miscellaneous	52,446
Tools	7,289
Depreciation—Factory buildings	1,250
Plant	12,500
	142,428
	\$548,138
Less: Cost of tools manufactured	\$ 8,756
Proceeds of sale of by-products	22,799
Inventory of work in process, March 31, 1945	25,715
	57,270
Cost of goods manufactured	\$490,868

Comments

In considering the solution to this problem, the attention of the student is drawn to the method of treating the "Cost of small tools manufactured during the period for own use" in the amount of \$8,756. In answering this question, candidates included in factory expense the cost of tools adjusted by the opening and closing inventories, but failed to deduct the cost of tools manufactured (\$8,756.00). It must be remembered that the figures

STUDENT SECTION

given in the question were not taken from a trial balance and the cost of small tools manufactured was a memorandum only. It is apparent that the elements of cost making up this amount were included in the items of expense. Referring to wages, it is emphasized in the question that the amounts shown represent the factory payrolls PAID during the period. Therefore, the wages going into the cost of the tools must also be included in the direct and indirect labour shown and similarly with the other items of expenses.

COST ACCOUNTING

By A. V. HARRIS, C.A.

Problem No. 1

The X.L. Company submits the following information concerning its payroll of the week ended February 14th:

Department	Direct Labour Hours	Indirect Labour Hours
1	15,000	6,000
2	7,500	1,500
3	9,000	3,000
4 .....	.....	1,800
5 .....	.....	1,200

The Company pays a standard rate throughout the plant of \$.60 per hour for indirect labour and \$.75 per hour for direct labour except that both direct and indirect labour in Department 1 receives \$1.25 per hour. The Company maintains a direct labour and an indirect labour account for each department.

Included in the direct labour hours stated above are certain "inter-departmental" items, which require to be transferred to their proper accounts. Details of these are:

Departments to be Charged	Work Performed by Departments (Labour Hours)		
	1.	2.	3.
2—direct	240	....	60
3—indirect	180	150	....
3—direct	210	120	....
4—indirect	150	120	50
5—indirect	120	60	50

Required:

Journal entries to record the above, with descriptive narratives.

Solution to Problem 1

	Dr.	Cr.
Department 1—Direct Labour	\$18,750.00	
" 1—Indirect Labour	7,750.00	
" 2—Direct Labour	5,625.00	
" 2—Indirect Labour	900.00	
" 3—Direct Labour	6,750.00	
" 3—Indirect Labour	1,800.00	
" 4—Indirect Labour	1,080.00	

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"	5—Indirect Labour	720.00
	Accrued Payroll	\$43,125.00

To set up payroll for week ending February 14 as follows:

	Hours	Rate	Amount
Department 1	15,000	\$1.25	\$18,750.
" 1	6,000	1.25	7,500.
" 2	7,500	.75	5,625.
" 2	1,500	.60	900.
" 3	9,000	.75	6,750.
" 3	3,000	.60	1,800.
" 4	1,800	.60	1,080.
" 5	1,200	.60	720.

\$43,125.

	Dr.	Cr.
Department 2—Direct Labour	\$ 300.00	
" 3—Indirect Labour	225.00	
" 3—Direct Labour	262.50	
" 4—Indirect Labour	187.50	
" 5—Indirect Labour	150.00	
" 1—Direct Labour		\$ 1,125.00

Transfer of 900 hours @ \$1.25 per hour
from Dept. 1 Direct Labour, per schedule.

Department 3—Indirect Labour	112.50	
" 3—Direct Labour	90.00	
" 4—Indirect Labour	90.00	
" 5—Indirect Labour	45.00	
" 2—Direct Labour		337.50

Transfer of 450 hours @ \$.75 per hour
from Dept. 2 Direct Labour, per schedule.

Department 2—Direct Labour	45.00	
" 4—Indirect Labour	37.50	
" 5—Indirect Labour	37.50	
" 3—Direct Labour		120.00

Transfer of 160 hours @ \$.75 per hour
from Dept. 3 Direct Labour per schedule.

Problem No. 2

The Groan Company Limited manufacture a single product—Wex. For the month of March the Company has budgeted to produce 29,700 units. At the end of the month production records show that 31,000 were actually produced.

The chief ingredient in the manufacture of the finished product is Raw Material Kem, of which there were 3,500 units on hand March 1, priced at \$30.00 per unit. The budget for the month estimated that 15.68 units of Kem would be required to produce 100 units of Wex, at an anticipated material price of \$30.00 per unit. Actual production statistics show that 15.50 units of Kem were required to produce 100 units of Wex, and that the current market purchase price was \$25.00 per unit.

STUDENT SECTION

Prepare a statement to show a comparison of the budget and actual cost of material used in production, and an analysis of variations.

Solution to Problem No. 2

Schedule of Actual and Budgeted Quantity of Materials Used for the

Month of March

	Actual	Comparison with Budget	
	Budget	Over	Under
Units produced of Product "Wex"	31,000	29,700	1,300
Quantity of Material "Kem" required to produce 100 units	15.50	15.68	.18
Units of Material "Kem" required for production of month	4,805	4,657	148

Schedule of Actual and Budgeted Costs of Materials Used for the Month of

March

	Actual		Budget	
	Units	Amount	Units	Amount
Inventory March 1	3,500	\$105,000.	3,500	\$105,000.
Purchases in month to supply production	1,305	32,625.	1,157	34,710.
Total Cost of Materials Used	4,805	\$137,625.	4,657	\$139,710.

Difference in cost of materials ($\$129,710. - \$137,625.$) = $\$2,085.$

Analysis of Difference Between Actual and Budgeted Cost of Materials Used for the Month of March

Difference in cost of materials used to difference

in cost price—Budget Price	\$ 30.
Actual Price	25.

$$\$ 5. \times 1,305 = \$6,525.00$$

Difference in quantity required for each unit

Budget Rate	15.68
Actual Rate	15.50

$$.18 \times 31,000 \times \$30. = 1,674.00$$

$$100 \quad \$8,199.00$$

Difference in volume of production

$$1,300 \text{ units} \times 15.68 \times \$30. = \$6,115.20$$

100

Adjustment re fraction of units

$$1.80 \quad 6,117.00$$

Difference in Cost of Materials used

$$\underline{\underline{\$2,082.00}}$$

RECEIVING RECEIVING REPORT

UNITED AIR LINES
INCORPORATED
100 NORTH WACKER DRIVE
CHICAGO, ILLINOIS

PURCHASE ORDER
No. 007

TO: **SAP TO UNITED AIR LINES, INC.**
Dept. 00-28554-9
6048 South Cicero Ave.
Chicago 30, Illinois

DATE: 1-25-48
FROM: Vendor

PLEASE ENTER OUR ORDER FOR THE FOLLOWING:

QTY	QUANTITY	UNIT PRICE	DESCRIPTION
1	ONE	100-0000	Report of trip passed
1	ONE	100-0000	Personal accident & ...

UNITED AIR LINES

PURCHASE ORDER
No. 20486

TO: **SAP TO UNITED AIR LINES, INC.**
Dept. 00-28554-9
6048 South Cicero Ave.
Chicago 30, Illinois

DATE: 1-25-48
FROM: Vendor

PURCHASE ORDER FOLLOW-UP

PURCHASING RECEIVING REPORT

UNITED AIR LINES
INCORPORATED
100 NORTH WACKER DRIVE
CHICAGO, ILLINOIS

PURCHASE ORDER
No. 007

TO: **SAP TO UNITED AIR LINES, INC.**
Dept. 00-28554-9
6048 South Cicero Ave.
Chicago 30, Illinois

DATE: 1-25-48
FROM: Vendor

PLEASE ENTER OUR ORDER FOR THE FOLLOWING:

QTY	QUANTITY	UNIT PRICE	DESCRIPTION
1	ONE	100-0000	Report of trip passed
1	ONE	100-0000	Personal accident & ...

ACCOUNTING RECEIVING REPORT

UNITED AIR LINES
INCORPORATED
100 NORTH WACKER DRIVE
CHICAGO, ILLINOIS

PURCHASE ORDER
No. 007

TO: **SAP TO UNITED AIR LINES, INC.**
Dept. 00-28554-9
6048 South Cicero Ave.
Chicago 30, Illinois

DATE: 1-25-48
FROM: Vendor

PLEASE ENTER OUR ORDER FOR THE FOLLOWING:

QTY	QUANTITY	UNIT PRICE	DESCRIPTION
1	ONE	100-0000	Report of trip passed
1	ONE	100-0000	Personal accident & ...

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